Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-34 (canceled).

35. (new) A method for cutting of items into portions of predetermined size, said method comprising the steps of

- placing the items on a conveying means;
- transporting the items to a measuring means;
- transporting the items from the measuring means to a cutting means on the conveying means;
- measuring at least one characteristic of each item with the measuring means;
- sectioning the items by the cutting means; and
- controlling and regulating at least one cutting process parameter in order to achieve predetermined product portions from the items based on the at least one measured item characteristic; wherein

said items are placed consecutively and substantially abutting each other on said conveying means.

36. (new) The method according to claim 35, wherein the controlling step includes an item boundary detection step, such

that a point of transition between consecutive items on the conveyor means is based on the at least one measured item characteristic.

37. (new) The method according to claim 36, wherein the item boundary detection step includes the steps of: receiving successive item data sets from the at least one measured item characteristic; and analyzing the received data for identifying the boundaries between the consecutively abutting items.

38. (new) The method according to claim 37, wherein the item boundary detection step includes the steps of:

- receiving successive item data sets from the at least one measured item characteristic;
- calculating summary differences between two successive data sets, said summary differences being the sum of the differences between a first of the successive data sets and a second of the successive data sets; and
- identifying any of the summary differences that exceed a predetermined threshold, said identified summary differences representing a location of one point of the transition between two items.

39. (new) The method according to claim 38, wherein the

controlling step utilizes the summary difference between two data sets, the summary difference being obtained from distance data from a plurality of sensors in the measuring means according to:

$$\Sigma\Delta = |\Delta 1| + |\Delta 2| + |\Delta 3| + \ldots + |\Delta n|,$$

where $\Sigma\Delta$ is the summary difference, $\Delta 1$ is the difference between a first distance data and a successive second distance data from the first sensor in the measuring means, and 'n' is the number of sensors.

40. (new) The method according to claim 38, wherein the controlling step utilizes the summary difference between two data sets, the summary difference being obtained from distance data from a plurality sensors in the measuring means according to:

$$\Sigma\Delta = |\Delta 1/a| + |\Delta 2/a| + |\Delta 3/a| + \ldots + |\Delta n/a|,$$

where $\Sigma\Delta$ is the summary difference, $\Delta 1$ is the difference between a first distance data and a successive second distance data from the first sensor in the measuring means, 'n' is the number of sensors, and 'a' is the length between the location of the first set of distance data and the location of the second set of distance data.

41. (new) The method according to claim 35, wherein the measuring means includes a scanning device.

42. (new) The method of claim 41, wherein the scanning device includes a ring scanner.

43. (new) The method according to claim 35, wherein the measuring means include a scanning device, and wherein at least one light source is arranged to emit at least one line of light towards the item(s) being scanned and the reflected light is detected by a sensor means arranged at an acute angle between the emitted and the reflected light beams.

44. (new) The method according to claim 43, wherein the angle is about 30°.

45. (new) The method according to claim 43, wherein the at least one line of light is oriented substantially parallel to the transporting direction of the items.

46. (new) The method according to claim 43, wherein the emitted at least one line of light is oriented across the conveyor.

47. (new) The method according to claim 43, wherein the controlling step includes the step of organizing the measurements for defining at least one list of item characteristics a presenting line characteristic along the items on the conveyor

and calculating the summary difference between two data sets in the list, with the summary difference being obtained by:

$$\Sigma\Delta = |\Delta 1| + |\Delta 2| + |\Delta 3| + \ldots + |\Delta n|,$$

where $\Sigma\Delta$ is the summary difference, $\Delta 1$ is the difference between a first data set and a successive second data set in the item characteristics, and 'n' is the number of data sets.

48. (new) The method according to claim 43, wherein the controlling step includes the step of organizing the measurements for defining at least one list of item characteristics representing a line characteristic along the items on the conveyor and calculating the summary difference between two data sets in said list, with the summary difference being obtained by:

$$\Sigma\Delta = |\Delta 1/a| + |\Delta 2/a| + |\Delta 3/a| + \ldots + |\Delta n/a|,$$

where $\Sigma\Delta$ is the summary difference, $\Delta 1$ is the difference between a first data set and a successive second data set in the item characteristics, 'n' is the number of data sets, and 'a' is the length between the location of the first data set and the location of the second data set.

49. (new) The method according to claim 43, wherein the at least one measured item characteristic is the height of the items.

50. (new) The method according to claim 35, wherein the items are aligned with the longitudinal direction of the abutting items.

5. (new) The method according to claim 35, wherein the items are mutually displaced relative to the longitudinal direction of the abutting items.

52. (new) The method according to claim 35, wherein the conveying means includes a V-shaped conveyor.

53. (new) The method according to claim 35, further comprising the step of weighing the items before the measuring.

54. (new) The method according to claim 35, wherein a transition marker between items is inserted.

55. (new) The method according to claim 35, wherein the measuring means include means for detecting a surface color and/or a texture and identifying changes therein.

56. (new) An apparatus for portion cutting of items, said apparatus comprising

conveying means for transporting items placed on said conveying means to measuring means for detecting at

least one characteristic of the product, and onwards to cutting means for sectioning the items into portions; and

control means for controlling and regulating at least one cutting process parameter in order to achieve predetermined item portions based on the measured item characteristics; wherein

said items are placed consecutively and essentially abutting each other on said conveying means.

57. (new) The apparatus according to claim 56, wherein the control means includes item boundary detection means for determining the point of transition between two items based on said at least one measured item characteristic.

58. (new) The apparatus according to claim 57, wherein the item boundary detection means includes means for receiving successive item data sets from the at least one measured item characteristic, and means for analyzing the received data for identifying the boundaries between the consecutively abutting items.

59. (new) The apparatus according to claim 58, wherein the control means include item boundary detection means, and wherein

- successive product data sets are provided from the at least one detected item characteristic,
- the summary differences between two successive data set are calculated as being the sum of the differences between a first data set and a second data set, and
- at least one point of transition between two items is located by identifying the calculated summary differences exceeding a predetermined threshold.

60. (new) The apparatus according to claim 59, wherein the control means are provided with the summary difference between two data sets, the summary difference comprising distance data from a plurality of sensors in the measuring means according to:

$$\Sigma\Delta = |\Delta 1| + |\Delta 2| + |\Delta 3| + \ldots + |\Delta n|,$$

where $\Sigma\Delta$ is the summary difference, $\Delta 1$ is the difference between a first distance data and a successive second distance data from sensor 1 in the measuring means, and 'n' is the number of sensors.

61. (new) The apparatus according to claim 59, wherein the control means are provided with the summary difference between two data sets, comprising distance data from a plurality of sensors in the measuring means by

$$\Sigma\Delta = |\Delta 1/a| + |\Delta 2/a| + |\Delta 3/a| + \ldots + |\Delta n/a|,$$

where $\Sigma\Delta$ is the summary difference, Δl is the difference between a first distance data and a successive second distance data from a first sensor in the measuring means, 'n' is the number of sensors and 'a' is the length between the location of the first set of distance data and the location of the second set of distance data.

62. (new) The apparatus according to claim 56, wherein the measuring means includes a scanning device for measuring one or more of surface dimensions, color, and textures of exterior and/or interior characteristics.

63. (new) The apparatus according to claim 62, wherein said scanner includes a ring scanner.

64. (new) The apparatus according to claim 56, wherein the measuring means include a scanning device, wherein at least one light source is arranged to emit at least one line of light towards the item and the reflected light is detected by a sensor means arranged at an acute angle between the emitted and the sensor position.

65. (new) The apparatus according to claim 64, wherein the angle is about 30°.

66. (new) The apparatus according to claim 64, wherein the emitted at least one light line is oriented parallel to the transporting direction of the items.

67. (new) The apparatus according to claim 64, wherein the emitted at least one light line is oriented across the conveyor.

68. (new) The apparatus according to claim 64, wherein the control means includes means for organizing measurements for defining at least one list of item characteristics representing a line characteristic along the items on the conveyor and calculating a summary difference between two data sets in said list, said summary difference being obtained by:

$$\Sigma\Delta = |\Delta 1| + |\Delta 2| + |\Delta 3| + \ldots + |\Delta n|,$$

where $\Sigma\Delta$ is the summary difference, $\Delta 1$ is the difference between a first data set and a successive second data set in the item characteristics and 'n' is the number of data sets.

69. (new) The apparatus according to claim 64, wherein the control means include means for organizing measurements for defining at least one list of item characteristics representing a line characteristic along the items on the conveyor and calculating a summary difference between two data sets in the list, said summary difference being obtained by:

$$\Sigma\Delta = |\Delta 1/a| + |\Delta 2/a| + |\Delta 3/a| + \ldots + |\Delta n/a|,$$

where $\Sigma\Delta$ is the summary difference, $\Delta 1$ is the difference between a first data set and a successive second data set in the item characteristics, 'n' is the number of data sets, and 'a' is the length between the location of the first data set and the location of the second data set.

70. (new) The apparatus according to claim 56, where the conveying means includes a V-shaped conveyor.

71. (new) The apparatus according claim 56, wherein the apparatus includes weighing means for weighing the items.

72. (new) The apparatus according to claim 56, wherein the apparatus includes means for inserting a transition marker between the items.